IN THE CLAIMS:

Please find below a listing of all pending claims. The statuses of the claims are set forth in parentheses. For those currently amended claims, underlined emphasis indicates insertions and ~~strikethrough~~ emphasis (and/or double brackets) indicates deletions.

1. (Previously Presented) An interface device, comprising:

an Ethernet frame and a synchronous optical network frame convertible interface device, wherein a 1st holding part with a VLAN identifier of said Ethernet frame and a path identifier of said synchronous optical network frame are placed opposite each other; and

a plurality of multiplexers of the interface device, each of which can be established corresponding to a path identifier of said synchronous optical network respectively and each of which is operable to multiplex an Ethernet frame having said specific VLAN identifier corresponding to said specific path identifier that is held by said 1st holding part among a plurality of input Ethernet frame VLAN identifiers;

wherein said each multiplexer establishes a filtering part that passes through Ethernet frames having said specific VLAN identifier among a plurality of Ethernet frames and a 1st encapsulating part that encapsulates information data contained in an Ethernet frame that passes through a filtering part, and said filtering part breaks down the frame when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by said holding part.

2. (Previously Presented) The interface device according to claim 1, wherein the multiplexer establishes an ID inserting part that inserts an opposing synchronous optical network transmission device path identifier that opposes an Ethernet frame that is encapsulated by a 1st encapsulating part.

3. (canceled)

4. (Previously Presented) A transmission system, comprising:

a plurality of synchronous optical network multiplex and demultiplex devices having Ethernet interface devices and synchronous optical network interface devices established, wherein a 1st synchronous optical network multiplex and demultiplex device among the plurality of synchronous optical network multiplex and demultiplex devices establishes a 1st holding part with an Ethernet frame specific VLAN identifier and a synchronous optical network frame specific path identifier placed opposite each other;

a plurality of multiplexers, each of which is established corresponding to a path identifier respectively and each of which can be operable to multiplex a plurality of Ethernet frames having a specific VLAN identifier corresponding to the specific path identifier that is held in the 1st holding part among an input plurality of Ethernet frame VLAN identifiers, along with a 2nd synchronous optical network multiplex and demultiplex device among the plurality of synchronous optical network multiplex and demultiplex devices with a 2nd holding part with the synchronous optical network frame specific path identifier and Ethernet frame specific VLAN identifier placed opposite each other; and

a demultiplexer that imparts a VLAN identifier corresponding to the path identifier that is held in the 2nd holding part to each extracted Ethernet frame by extracting each Ethernet frame and the synchronous optical network frame path identifier from a frame originating in the synchronous optical network frame;

wherein the 1st multiplex and demultiplex device multiplexer multiplexing part inserting a flag that indicates an input side Ethernet frame transmission fault along with the 2nd synchronous optical network multiplex and demultiplex device that prevents output of an Ethernet frame that is transmitted by detection of the flag from a frame originating in the synchronous optical network frame;

a filtering part that breaks down a frame when a VLAN identifier of the frame is different from any one of the VLAN identifiers that is held by the holding part.

5. (Cancelled)